

Work Order ID 94198

94198

Page 1

November-30-12 10:09:12 AM

Item ID: D3650-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Tunnel Top Panel Assembly

Start Date: 11/30/12 Start Qty: 3.00

3

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 3.00

3

Customer:

Reference:

Approvals: Process Plan: ML3 Date: 12-12-04 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3650	Rev E								
100	Pick Kit	0.00							<i>FF</i>
100						<u>3</u>			<u>12-02-12</u>
Packaging	Memo	0.00							
Packaging									
110		0.00							<i>FF</i>
110	Small Fab					<u>3</u>			<u>13-02-13</u>
Small Fab	Memo	0.00							
Small Fab	1-Assemble as per dwg D36502- Seal all mating surfaces and all gaps using Proseal 700 fire wall sealantas per dwg D3650Batch: <u>124267</u>								
120	QC5- Inspect part completeness to step on W/O	0.00							
120									<u>13/02/13</u>
QC	Memo	0.00							
Quality Control									

*D4
306*

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

94198

November-30-12 10:09:12 AM

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 11/30/12 **Start Qty:** 3.00

3

Cust Item ID:

Required Date: 12/14/12 **Req'd Qty:** 3.00

3

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop. ***NR2***

Operation Description

Set Up/ Run Hours

Tool ID**Tool #**

Plan Code

**Accept
Qty**

Reject
QtyReject
Numbe

**Insp.
Stamp**

130

Identify as per dwg & Stock Location:

0.00

130

Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

13/2/14

MF
13-2-13

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Skid-tube <input type="checkbox"/></td> <td style="width: 33%;">Crosstube <input type="checkbox"/></td> <td style="width: 33%;">Water Jet <input type="checkbox"/></td> <td style="width: 33%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>																								
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Supplier <input type="checkbox"/>																											
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Unapproved <input type="checkbox"/>																											

FAULT CATEGORY			
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Picklist Print

November-30-12 10:09:12 AM

Page 1

Work Order ID: 94198

Parent Item: D3650-041

Parent Item Name: Tunnel Top Panel Assembly

Start Date: 11/30/12

Required Date: 12/14/12

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP Rev:A New Issue 07-11-12 EC verified by: DD
 IPP Rev:B Ecn 1113P 08-01-22 DD verified by:EC
 IPP Rev:C Ecn1162 08-04-02 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C3A Bolt		Purchased	No			110	Each	231.0000	8	24		FF 13-02-12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA 124028		38				24			
				118352		38							
				ST350		193							
				120187		1							
				123203		192							
D3650-1 Aft Panel		Manufactured	No			110	Each	0.0000	1	3		FF 13-02-13	
D3650-3 Center Panel		Manufactured	No			110	Each	1.0000	1	3		FF 13-02-12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST189 94795		1				3			
				91647		1							
D3650-5 Fwd Panel		Manufactured	No			110	Each	2.0000	1	3		FF 13-02-12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST189 94520		2				3			
				90393		2							
NAS1149C0363R Washer		Purchased	No			100	Each	4,203.0000	8	24		FF 13-02-12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST292		4203							
				114742		2003							
				122063		200							
				122441		2000				24			

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
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Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

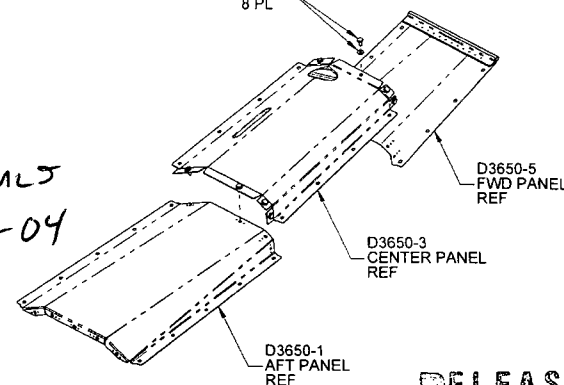
FAULT CATEGORY			
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

QTY -041	PART NUMBER	DESCRIPTION
X	D3650-041	TUNNEL TOP PANEL ASSEMBLY
1	D3650-1	AFT PANEL
1	D3650-3	CENTER PANEL
1	D3650-5	FWD PANEL
8	AN3C-3A	BOLT
8	AN960C10	WASHER

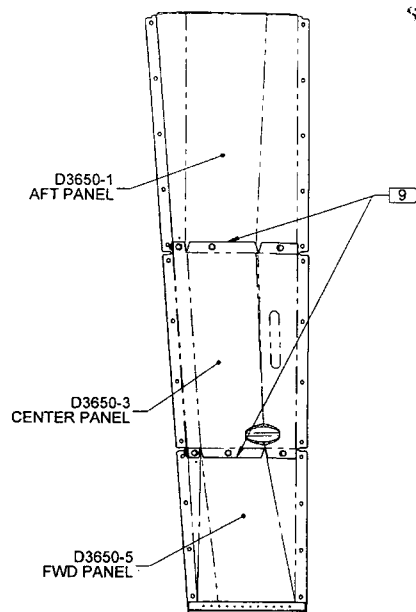


UNCONTROLLED
SUBJECT
WORK
94198 MLJ
12-12-04

AN3C-3A BOLT
AN960C10 WASHER
8 PL



RELEASED
2012-10-09



D3650-041 TUNNEL TOP PANEL ASSEMBLY

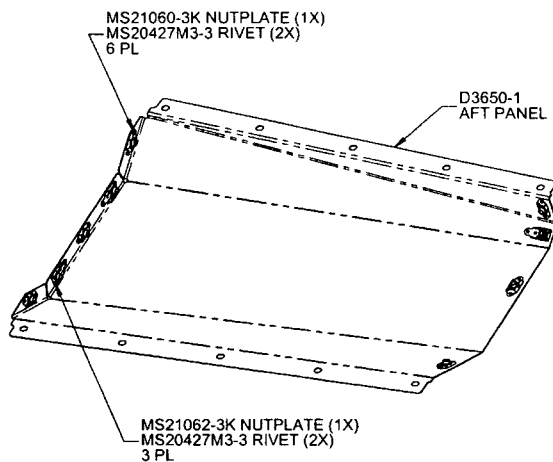
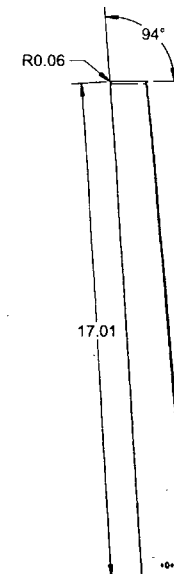
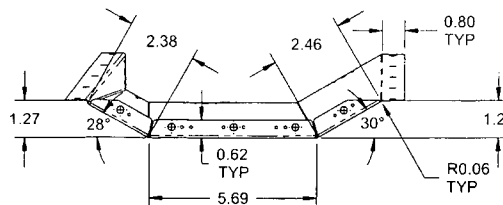
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 4.3 lbs
- 8) TORQUE FASTENERS 15 TO 25 in-lb
- 9) SEAL ALL MATING SURFACES AND ALL GAPS USING PROSEAL 700 FIRE WALL SEALANT

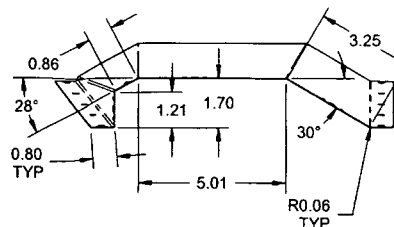
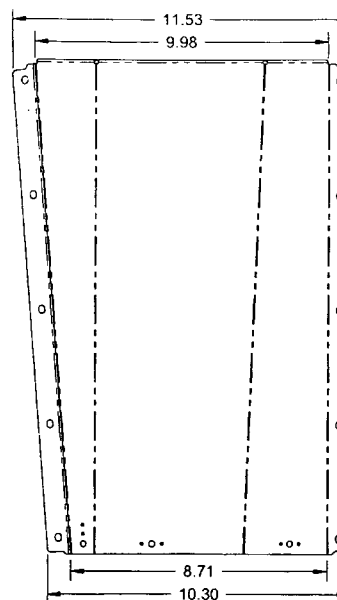
E	REVISED D3650-3: 0.040 IN THICKNESS WAS 0.018. MINOR DIMENSIONAL CHANGES AS A RESULT.	MB	12.10.01
D	D3650-11 REPLACED WITH AN EMBOSS. PAGE 4 DELETED. D3650-3 BEND RELIEFS CHANGED TO TRIANGULAR SHAPE AT BOTH ENDS. D3650-3 HOLES CHANGED TO SLOTS. ALL NOTES UPDATED TO CONFORM TO QSI 043. TIGHTENED CUT TOLERANCES IN ALL FLAT PATTERNS. DEO D3650-C-1 INCORPORATED.	RP	12.08.12
C	REFORMATTED TO NEW STANDARDS; RELOCATED PART LIST (ZN D2-2); ADDED SECTION VIEW J-J & REVISE DIMENSIONS (ZN B7-5, C4-5); ADDED RECESS LOCATION & REVISED DIMENSIONS (ZN C6-6, D5-6); MS20619-4M5 WAS CR9523-4-03 & NAS1149CN432R WAS AN960C4 (ZN D5-7, B5-7, B8-7).	RF	08.10.14
B	SHEETS 1, 2 & 7. UPDATED FASTENER QUANTITIES; UPDATED VIEWS SHEETS 3 & 8. REMOVED/RELOCATED HOLES; UPDATED VIEWS SHEET 4: 1.8 WAS 1.5; 1.0 WAS 0.8; UPDATED VIEW; ADDED NOTE 8 SHEET 5: REMOVED NOTE IN C6 & ASSOCIATED DIMS; UPDATED VIEWS SHEET 6: REMOVED/RELOCATED HOLES & ADDED CUTOUT TO D3650-3F; MOVED D3650-11A-11F TO SHEET 9; ADDED DETAIL I SHEET 9: RELOCATED D3650-11A-11F FROM SHEET 6; UPDATED DIMS OF D3650-11A-11F	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	JP	DRAWING NO.	REV. E
MFG. APPR.	JP	D3650	SHEET 1 OF 8
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	TOP PANEL ASSEMBLY	NTS
DATE	12.10.01	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

94198

QTY -1	PART NUMBER	DESCRIPTION
X	D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUTPLATE



D3650-1 AFT PANEL

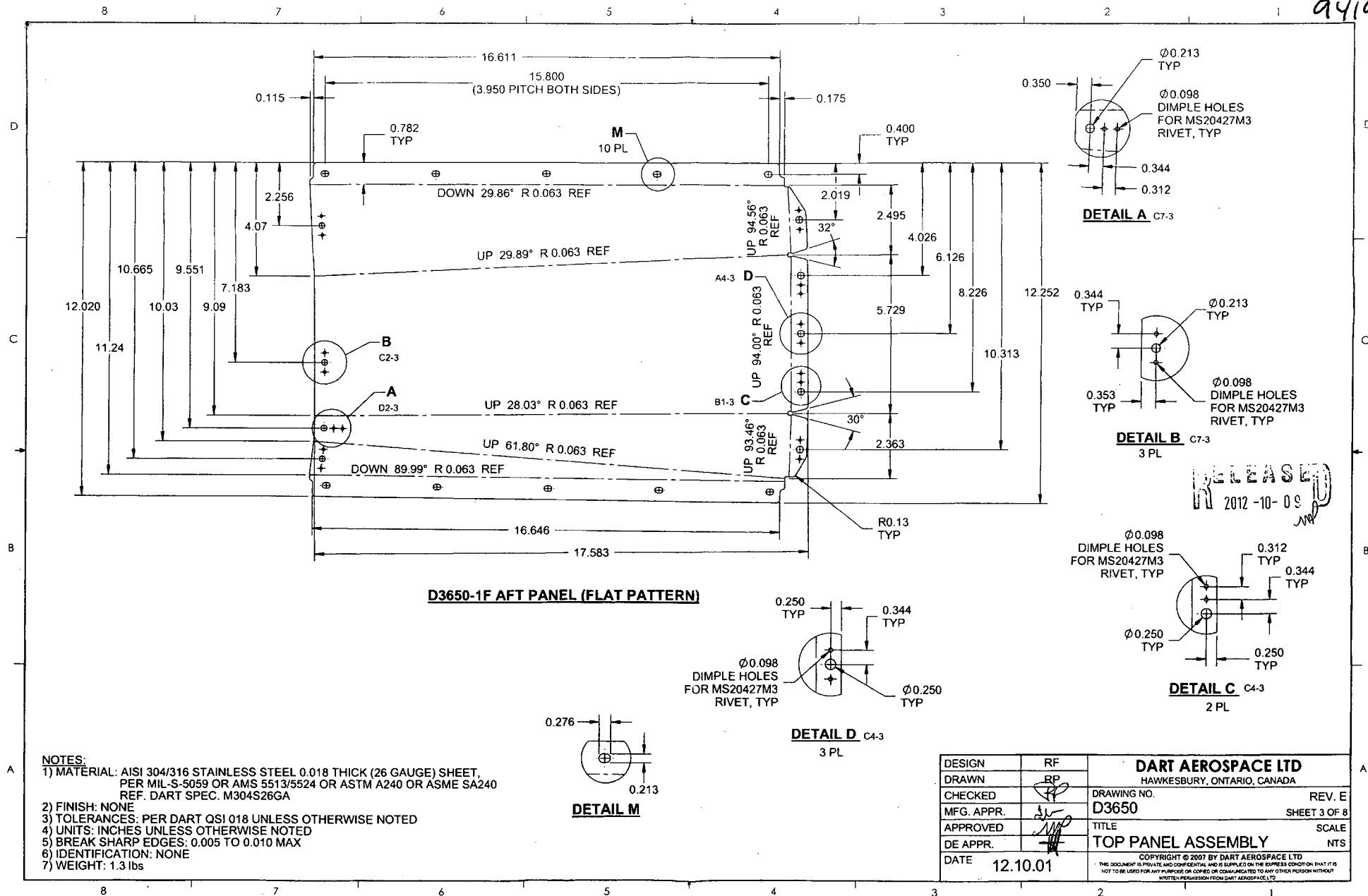


D3650-1B AFT PANEL BENT PART

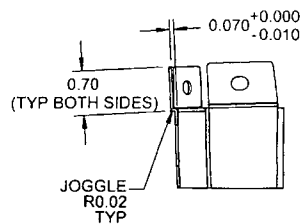
- NOTES:**
- 1) MATERIAL: MAKE FROM D3650-1F
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 1.3 lbs

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	RP	DRAWING NO. D3650	REV. E
MFG. APPR.	RP		SHEET 2 OF 8
APPROVED	RP	TITLE TOP PANEL ASSEMBLY	SCALE NTS
DE APPR.	RP		
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

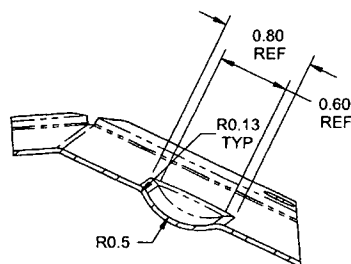
94198



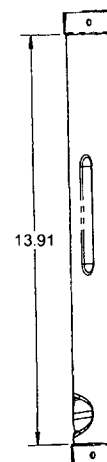
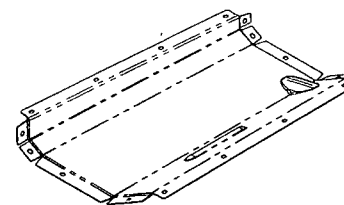
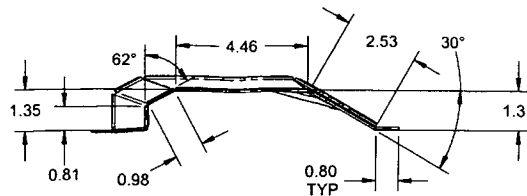
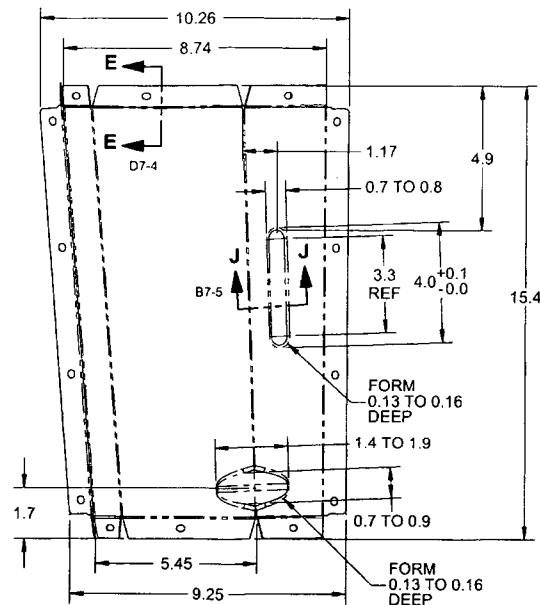
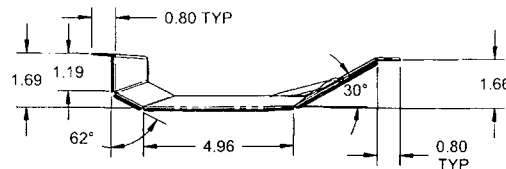
94198



SECTION E-E C5-4



SECTION J-J C4-4

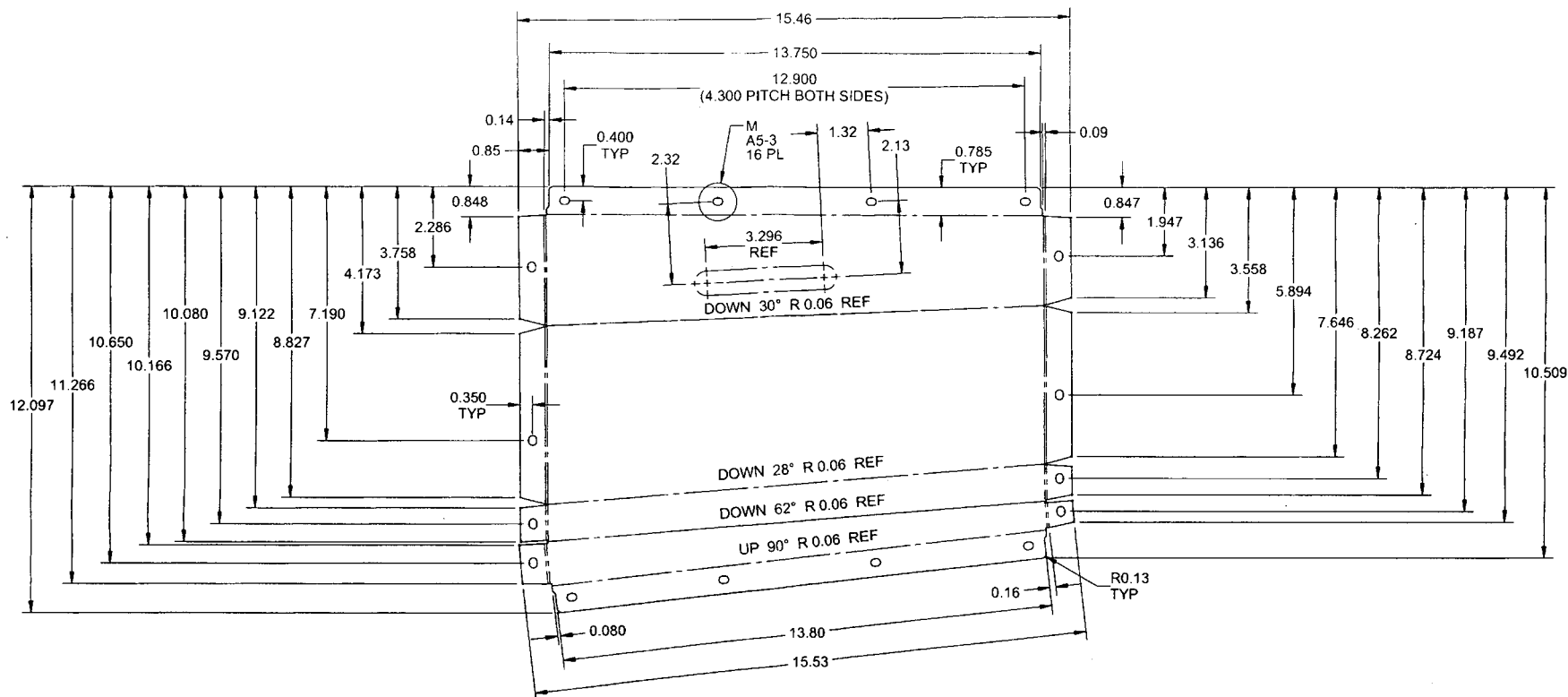


- NOTES:
- 1) MATERIAL: MAKE FROM D3650-3F
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 1.98 lbs

D3650-3 CENTER PANEL

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RP	DRAWING NO.	REV. E
MFG. APPR.	AM	D3650	SHEET 4 OF 8
APPROVED	MP	TITLE	SCALE
DE APPR.	MP	TOP PANEL ASSEMBLY	NTS
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

94198



D3650-3F CENTER PANEL (FLAT PATTERN)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.040 THICK (20 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S20GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.98 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	REV. E
MFG. APPR.	MB	D3650	SHEET 5 OF 8
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	TOP PANEL ASSEMBLY	NTS
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

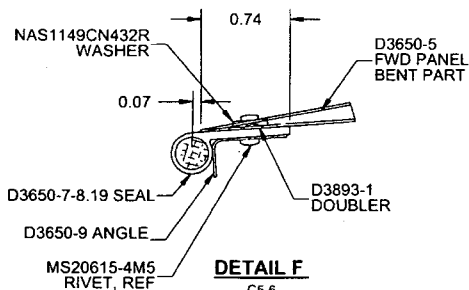
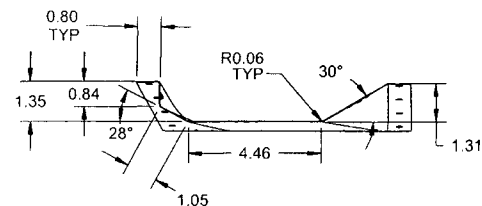
94198

QTY	PART NUMBER	DESCRIPTION
-5		
X	D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
1	D3893-1	DOUBLER
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

MS21062-3K NUTPLATE (1X)
MS20427M3-3 RIVET (2X)
2 PL

MS21060-3K NUTPLATE (1X)
MS20427M3-3 RIVET (2X)
2 PL

D3650-5B
FWD PANEL
BENT PART



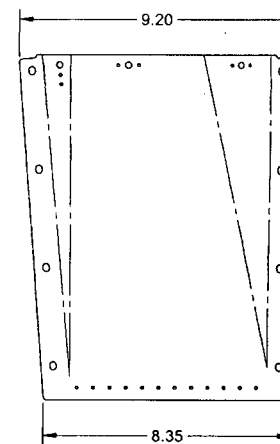
DETAIL F
C5-6

D3650-9
REF
D3650-7-8.19
REF

D3650-5B
FWD PANEL
BENT PART
REF

CENTRE D3650-7/9 ON D3650-5B &
TRANSFER Ø0.129 HOLES
FROM D3650-9 TO D3650-7 & D3650-5B
AS SHOWN
INSTALL
MS20615-4M5 RIVET
NAS1149CN432R WASHER
12 PL

D3650-5 FWD PANEL



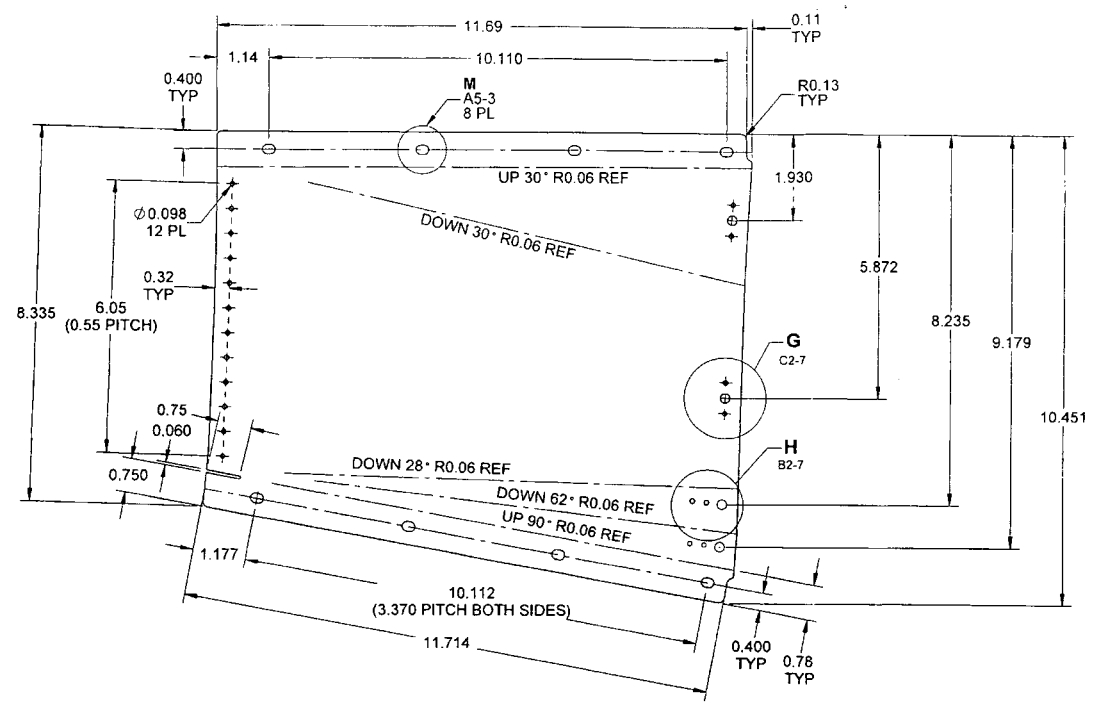
D3650-5B FWD PANEL BENT PART

RELEASED
2012-10-09

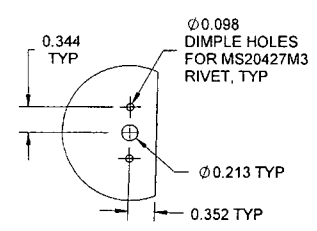
- NOTES:**
- 1) MATERIAL: MAKE FROM D3650-5F
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.8 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RR	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SR	DRAWING NO.	REV. E
MFG. APPR.	AL	D3650	SHEET 6 OF 8
APPROVED	AP	TITLE	SCALE
DE APPR.	#	TOP PANEL ASSEMBLY	NTS
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

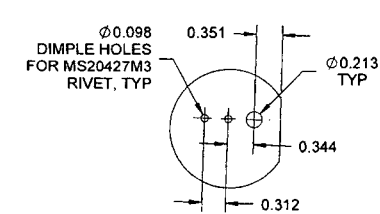
94198



D3650-5F FWD PANEL (FLAT PATTERN)



DETAIL G C5-7
2 PL



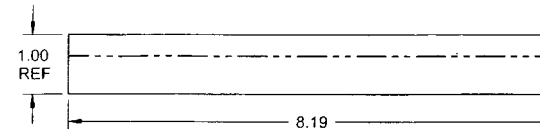
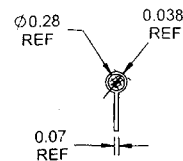
DETAIL H B5-7
2 PL

RELEASE
2012-10-09

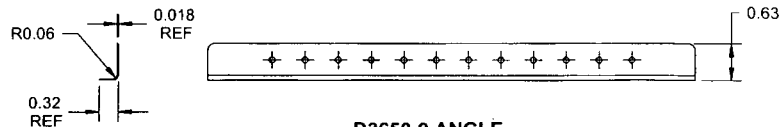
- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF. DART SPEC. M304S26GA
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.6 lb

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RP		
CHECKED	<i>[Signature]</i>	DRAWING NO. D3650	REV. E SHEET 7 OF 8
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
APPROVED	<i>[Signature]</i>	TOP PANEL ASSEMBLY	
DE APPR.	<i>[Signature]</i>	NTS	
DATE	12.10.01	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

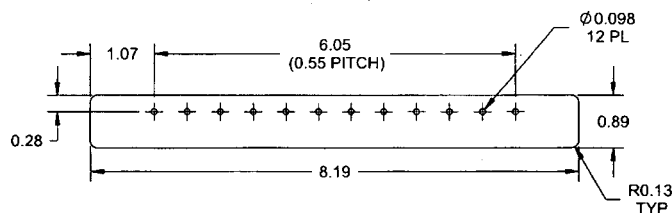
94198



D3650-7-8.19 SEAL



D3650-9 ANGLE
(MAKE FROM D3650-9F)



D3650-9F ANGLE (FLAT PATTERN)

- NOTES:**
- 1) MATERIAL: P/N 8168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.05 lb
 - 8) PART NUMBER: D3650-7-X.XX
WHERE X.XX = LENGTH IN INCHES
EG. 12.50" LONG = D3650-7-12.50

RELEASE
2012-10-09

D3650-9F

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET,
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S26GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RP	DRAWING NO.	REV. E
MFG. APPR.	RP	D3650	SHEET 8 OF 8
APPROVED	RP	TITLE	SCALE
DE APPR.	RP	TOP PANEL ASSEMBLY	NTS
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